

NEWS RELEASE

May be published when received.



May 10, 2016

603 West Park Street, Sheldon, Iowa 51201
Phone 712-324-5061 or toll free 1-800-352-4907, Ext. 105

Northwest Iowa Community College Hosts Fourth Annual Engineering Expo

Northwest Iowa Community College hosted the fourth annual High School Engineering Expo Wednesday, May 4. The object of the NCC Engineering Expo was to promote engineering as an exciting field for young people and to assist high schools in providing STEM education outside of the classroom. The competition consisted of four phases: egg launch catapult/accuracy, egg launch catapult/distance, poster presentation, and a problem solving competition consisting of a set of five timed problems. Sixty-five students from northwest Iowa high schools participated in this daylong event.

Each of the teams conceptualized the design and built their catapults prior to the competition. The day of the Expo they set up their catapult in a designated launch area and launched raw eggs at a bull's-eye target to test accuracy. Each team had three practice shots and five scored shots.

After the teams competed in the accuracy competition they had a distance competition to see whose catapult would throw an egg the farthest. This is held after the accuracy competition to make sure all the teams can push their catapults to their absolute limit and not have to worry about any damage to the catapult for their accuracy challenge.

The students also needed to create a poster that included the calculations of predicted distances of the catapulted egg, documentation of the design process, and a list of materials used. The poster needed to be visually attractive and demonstrate the group's understanding of the engineering principles involved.

The problem solving portion was expanded this year to a series of five timed problems. The students had to finish each problem in order and could not move on to the next problem until the first problem was completed. They were given twenty minutes to complete all five problems. The team that completed all five problems in the least amount of time won.

Sheldon High student, Jake Roos, said, "We spent about a month designing and constructing our catapult and we had about two days of testing. We tested the catapult with raw eggs, hard boiled eggs, and even frozen eggs. They all threw differently. The regular eggs seemed to barrel roll to the target because the yolk was swishing around. The frozen eggs were like bullets because the yolk wasn't moving. It has been a lot of fun!"

Sheldon's Team Advisor, Chris Stotz, said, "I really like the competition. It is a fun and different activity for the kids to do. It incorporates so many disciplines: physics, trigonometry, geometry, and structural integrity. It is a great way for the kids to practice a lot of the applications we learn about in class."

Thank you to all of our sponsors who make this event a success:

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- Pella
- Coilcraft

Each school could win first, second or third for each problem. The Traveling Trophy/overall winner is the combination of all the scores from each problem.

2016 Winners:

Overall Champion

Trinity Christian 142.5 out of 200 points

Presentation

1. HMS-2 - 41 points
2. Trinity Christian - 36.5 points
3. HMS-1 - 35.75 points

Accuracy

1. Trinity Christian - 36 points
2. HMS-1 - 26 points
Sioux Center - 26 points
3. Orange City Career Academy - 24 points

Longest Throw

1. Sioux Center - 286' 6"
2. Sheldon - 238' 6"
3. HMS-1 - 207' 2"

Problem Solving

1. Sioux Center Don't Expect Anything
2. South O'Brien
3. Trinity

Central Lyon

Ross Krull	Nash Knobloch	Joe Katt
Brady Metzger	Calen Black	Hannah Sierpeda
Dusty Ramsey	Tyler Bloemendaal	Advisor: Bill Allen
Dylan Zeiner	Sam McCarty	

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Hartley-Melvin-Sanborn (HMS Hurling Hawks 1)

Madi Unrau
Hunter Dorhout
Hunter Orthmann
Cole Verbrugge
Jon Soto
Advisor: Daniel De Groot

HMS Hurling Hawks 2

Jordan Schiphoff
Morgan De Groot
Ashley Heetland
Elizabeth Spier
Grant Honken
Advisor: Daniel De Groot

Sioux Center

Marcus Winterfeld
Tanner Cleveringa
Jackson De Boer
Brady Schreiner
Jeffrey Heide
Logan Kruid
Colton Maasen
Advisor: John Doornenbal

Sioux Center - Don't Expect Anything

Aubrey Sandbulte
Clare Kortlever
Miranda Lammers
Maggie Kleyer
Andrea Verburg
Bryan Mouser
Lucas Boyer
Kati Schelling
Emily Schuiteman
Advisor: Joy Hurst

Sioux Center - Flying Fulcrums

Andrew TeGrotenhuis

Alex Gray

Dexter Hooyer

Ko Kieft

Tanner Rensink

Sam Schrader

Asha Winterfeld

Ben Baccam

Advisor: Joy Hurst

South O'Brien

Ben Abersson

Garrett Wagner

Ty Hoey

Joseph Rohwer

Carly Lundquist

Brian Haden

Advisor: Kim Poeckes

Trinity Christian

Joel Baker

Gysbert

Grace Huizenga

Mike Laning

Dolan Boonstra

Phil Boonstra

Advisor: John Huizenga

Sheldon:

Cole Stofferan

Tyler Brink

Jake Roos

Noah DeKok

Advisor: Chris Stotz

Orange City Career Academy

Taylor Van Der Zwaag

Layne Helmuth

Jacob Goergen

Dylan Bruhing

Advisor: Chris Stotz